

## ABSTRACT OF THE DISCLOSURE

A reproduced signal waveform processing apparatus is provided. The apparatus includes an A/D converter for  
5 sampling a reproduced signal at a reproducing clock having a predetermined oscillation frequency; a first equalizer for equalizing a digital reproduced signal from the A/D converter; a second equalizer connected in series with the first equalizer for further equalizing the digital reproduced  
10 signal from the first equalizer; a phase frequency controller for detecting a phase frequency error between the digital reproduced signal from the first equalizer and the reproducing clock signal, and outputting a control signal on the basis of a result of the detection; and a variable  
15 frequency oscillator for varying the oscillation frequency in accordance with the control signal.